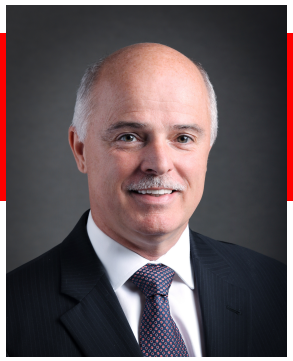
Office of the Chief
Information Officer

Annual Report

2016-17

Newfoundland
Labrador



MESSAGE FROM THE MINISTER

As the Minister Responsible for the Office of the Chief Information Officer (OCIO), I am pleased to present the 2016-17 Annual Report covering the period from April 1, 2016 to March 31, 2017.

The OCIO supports the information technology (IT) and information management (IM) requirements of the Government of Newfoundland and Labrador departments and agencies. The use of secure and innovative solutions ensures effective delivery of its services to citizens, businesses and organizations.

The 2016-17 fiscal year marks the end of a three-year planning cycle, and I am pleased to report that the OCIO has achieved all of its goals for the past three years. Over the 2016-17 fiscal year, the OCIO has been working to implement objectives identified in the 2014-17 Business Plan as well as execute on commitments outlined in The Way Forward. It has leveraged its Cloud Computing Strategy to enhance digital service delivery, implemented a new professional services procurement agreement to support the local IT industry, continued to implement its models for delivering new services, and expanded its ongoing information technology support services to further align with the principles of information protection and security for the departments and agencies under its mandate.

In the years ahead, the OCIO will continue to provide a wide range of services to support Provincial Government departments and agencies in their efforts to provide programs and services to citizens and businesses throughout Newfoundland and Labrador.

My signature below indicates my accountability for the results reported herein.

Honourable Tom Osborne
Minister Responsible for the Office of the Chief Information Officer

Table of Contents

Departmental Overview 1
Staff and Budget 1
Budget 1
Organizational Structure 2
Branch Descriptions 2
Highlights and Partnerships 4
Report on Performance 7
Issue 1: Innovation 7
2014-17 Goal 7
Goal Indicators and Accomplishments 7
2016-17 Objective 10
Indicators and Accomplishments 2016-17 10
Discussion of Results 11
Issue 2: Service Delivery 11
2014-17 Goal 12
Goal Indicators and Accomplishments 2014-17 12
2016-17 Objective 13
Indicators and Accomplishments 2016-17 13
Discussion of Results 14
Issue 3: Information Management and Protection 15
2014-17 Goal 15
Goal Indicators and Accomplishments 2014-17 15
2016-17 Objective 17
Indicators and Accomplishments 2016-17 18
Discussion of Results 18
Opportunities and Challenges 19
Digital Government 19
Evolution of technology 19
Unaudited Financial Statements 21

Departmental Overview

The OCIO supports the business of Government by providing and managing innovative information technology solutions and secure infrastructure. The OCIO also provides information management and information protection guidance and policy direction to Government. Further information about the OCIO including its vision, mandate and client departments can be found at http://www.ocio.gov.nl.ca/.

Staff and Budget

The OCIO has approximately 300 staff. The majority of its employees are located in offices throughout St. John's. Employees are distributed among the OCIO's regional offices in Happy Valley-Goose Bay, Corner Brook, Stephenville, Grand Falls-Windsor, Gander and Clarenville.

The net expenditure for the OCIO, as provided in the Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund for the Year Ended March 31 2017, was $48,638,186. Please refer to the unaudited financial statement found on page 21 for further detail.

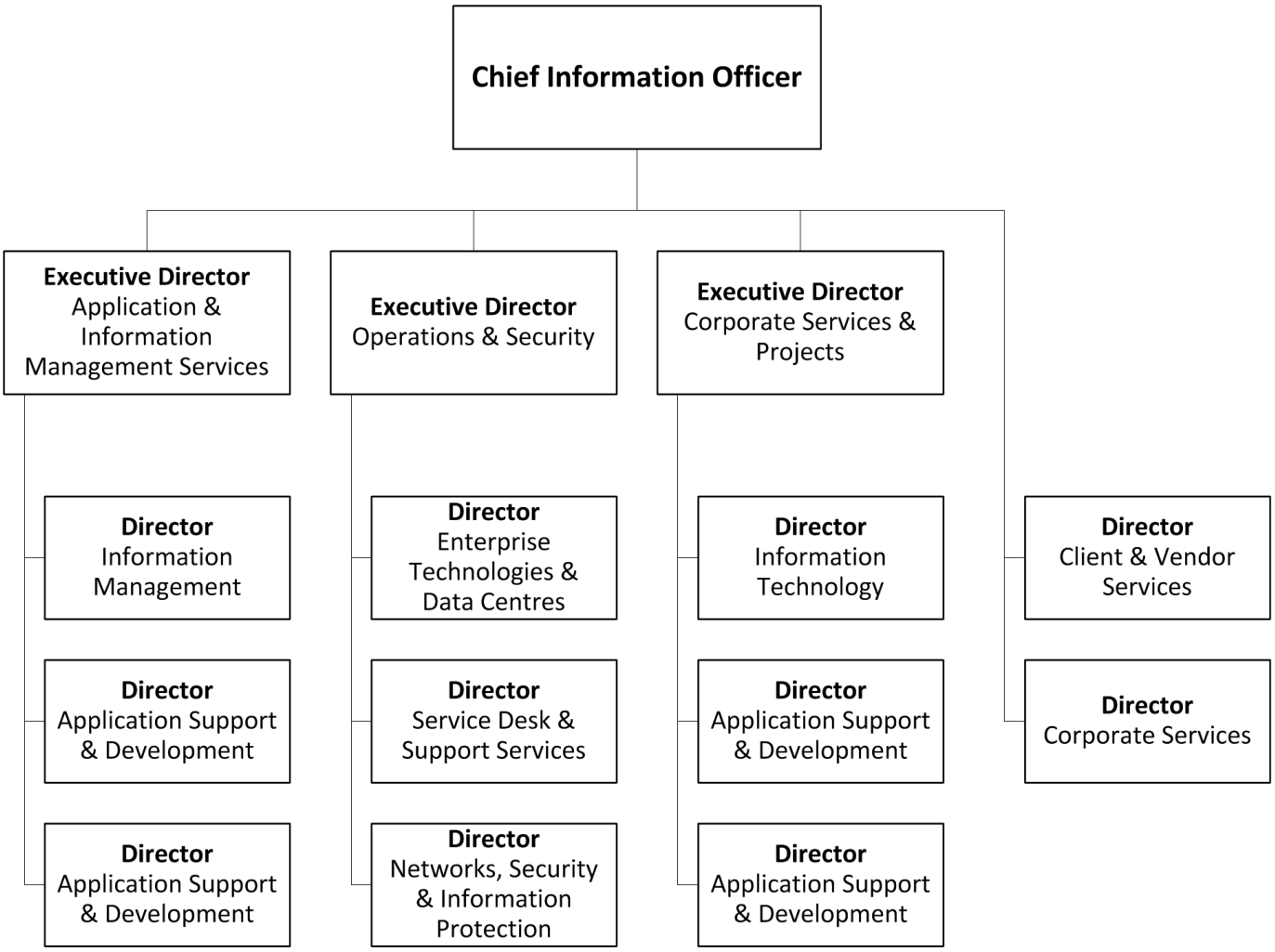
Budget

The 2017-18 Budget for the OCIO, including revenues, is $55,258,700:

Branch	# of Employees	Budget
Application and Information Management Services	107	$10,007,800
Corporate Support and Projects	60	$21,859,500
Operations and Security	126	$23,391,400

Organizational Structure

The OCIO is structured into three branches: Application and Information Management Services, Operations and Security, and Corporate Services and Projects.



Branch Descriptions

Application and Information Management Services: provides leadership and vision in support of Government's business applications and technologies, ensuring relevance and availability. Services include: application support including enhancements and maintenance, database administration and protection services. The branch also develops Information Management directives, standards, procedures and guidelines, and provides advisory services and support to Government departments and supported agencies. In addition, the branch is responsible for the administration of the Management of Information Act and for Government-wide Information Management

initiatives. The net expenditure for the Application and Information Management Services Branch in 2016-17 was $10,002,302.

Operations and Security: provides ongoing support and management for Government's IT infrastructure, assets and software to ensure their security, integrity and availability. The branch also supports Government's enterprise data centre, enterprise applications and related technologies and is responsible for OCIO facilities management. The net expenditure for the Operations and Security Branch in 2016-17 was $21,733,336.

Corporate Services and Projects: provides overall vision, strategy and leadership in the design, development, implementation, deployment and support of systems and new technologies for Government departments and supported entities. The branch also provides enterprise architecture, project management, standards, web development and web support. The net expenditure for the Corporate Services and Projects Branch in 2016-17 was $16,902,548.

Client and Vendor Services: sets IT strategic direction for Government, participates in the development of departmental IT strategic plans, assists in the prioritization of departmental IT spend, manages the interests of client departments and supported agencies, acts as a liaison with the local IT industry, manages vendor and client relationships, as well as corporate lead in the areas of policy and planning.

> **Corporate Services:** oversees IT/IM procurement and contract management, as well as corporate lead in the areas of finance, Cabinet support and Occupational Health and Safety.

Highlights and Partnerships

The OCIO works in partnership with Government departments, supported public bodies and the private information technology sector on initiatives that address the IT and IM needs of Government. Through these shared commitments, the OCIO addresses the key strategic objectives outlined in its 2014-17 Business Plan and The Way Forward.

During 2016-17, the OCIO continued to partner with the private IT sector to maximize business opportunities while meeting the needs of Government. This was achieved through ongoing work with the three vendors of record (see table below), with whom the OCIO completed a significant portion of its project work for departments, and also through continued consultation and communication with the broader IT sector and by attending relevant Newfoundland Association of Technology Industries (NATI) events.

The OCIO awarded approximately $14,195,100 in 2016-17 through three main services contracts:

- Professional Services vendors provide specialized IT skills that are not available in-house or supplement short-term staffing gaps;
- Data Centre vendors provide management for the Government's data centre located at 40 Higgins Line, as well as mainframe and midrange services (large and medium size servers); and
- Wide Area Network (WAN) vendors manage the Government's WAN and shared Internet service.

The following table outlines services and expenditures outsourced to IT vendors of record.

Service	Vendor	Total Expenditure for 2016-17
Professional Services	PricewaterhouseCoopers LLP consortium (PricewaterhouseCoopers LLP, Infotech Canada Inc. and Tamarack Geographic Technologies Ltd.)	$1,907,800
	KPMG LLP consortium (KPMG LLP, Dockridge Solutions Inc., IBM Canada Ltd., and Integrated Informatics Inc.)	$1,579,400
	Bell Canada Inc. consortium (Bell Canada Inc. and zedIT Solutions)	$5,636,600
Data Centre	Bell Canada	$3,809,100
WAN	Bell Canada	$1,262,200
Total		$14,195,100

During 2016-17, the OCIO was responsible for managing over 60 projects for 13 client departments and supported bodies. Thirteen projects were new starts, 47 were continued from previous year(s), and approximately 32 projects were completed in 2016-17. A selection of the initiatives undertaken by the OCIO in 2016-17 are described below:

Digital Government: Case for Change and Literacy Campaign (Action 1.9 of The Way Forward)

The OCIO, with input from senior leadership from 11 departments, developed, documented and communicated a Digital Government Case for Change which provides recommendations and an approach for the implementation of a Digital Government Strategy in Newfoundland and Labrador.

Managed Service Provider (Action 1.14 of The Way Forward)

The OCIO implemented a Managed Service Provider approach to expand opportunities for local vendors on Government IT work.

Online Domestic Wood-Cutting Permits (The Way Forward commitment to "increase the number of services delivered online")

The Department of Fisheries and Land Resources implemented a system that enables the public to apply and pay for domestic cutting permits online.

Implement Customer Flow Management at Mount Pearl Motor Registration (Action 1.9 of The Way Forward)

Service NL implemented a Customer Flow Management system at the Mount Pearl Motor Registration site. Citizens can now book appointments online and receive text message alerts when their number will soon be called thus reducing congestion at the Motor Registration site and shortening wait times.

Report on Performance

In accordance with the Transparency and Accountability Act, this section is an account of the OCIO's progress in meeting the 2016-17 objectives and accompanying indicators as outlined in the 2014-17 Business Plan. Indicators for plan objectives outlined below were developed by senior management and identify activities to address planned results.

Issue 1: Innovation

Innovation enhances the business of Government by providing opportunities to increase productivity, improve the delivery of public services, maximize investment in technology and respond more effectively to changing public needs and expectations.

2014-17 Goal

By March 31, 2017, the Office of the Chief Information Officer will have enhanced the mobility and e-services capacity of Government departments and agencies under its mandate.
Measure: Enhanced the mobility and e-services capacity of Government departments and agencies under its mandate.

Goal Indicators and Accomplishments

Indicators (Planned)	Accomplishments (Actual)
Developed formal Cloud Computing and Identity and Access Management strategies and integrated them into services and operations.	Cloud computing is a model for enabling on-demand access to computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly used with minimal effort or service provider interaction. In general, any subscription-based service that extends IT capabilities in real time over the Internet can be considered a cloud service. A formal cloud computing strategy was completed in August 2014. The approach outlined in the strategy focuses on Software as a Service (SaaS) in the public cloud, while preparing for the inclusion of additional services in the future.

The strategy targets three key areas including guidance for decision makers, procurement practices, and service delivery. The cloud computing strategy was presented to the OCIO's Senior Leadership Team, Directors Forum and the Extended Management Team. This strategy sets the direction for the use of cloud based e-services across Government.

A Cloud Service Library listing all the cloud services currently employed by the Government of Newfoundland and Labrador was documented in November 2015 and a cloud procurement handbook was developed and communicated to stakeholders across the OCIO in March 2016. The cloud services procurement handbook and current cloud services library provide criteria for the use of cloud services within the Government of Newfoundland and Labrador. These resources expand the ability for Government to reuse existing cloud services for other purposes and provide references for the selection of additional cloud services.

In 2016-17 the OCIO worked closely with the Access to Information and Protection Privacy Office and the Office of the Information and Privacy Commissioner to develop privacy guidelines which will be incorporated into the OCIO's System Development Life Cycle in early 2017-18. The OCIO established a Cloud Preparedness Committee to hold regular meetings with industry, thought leaders (e.g. Gartner) and other public sector jurisdictions / committees to leverage best practices.

A seven-member, cross-Government identity and access management (IAM) working group comprised of representatives from Service NL, Finance, Health and Community Services, and the OCIO was created in April 2014 to share information and seek input from key departmental stakeholders.

The group met throughout the year to discuss provincial and pan- Canadian identity and access management initiatives. The committee assisted in the identification of cyber-

	authentication services to align with other Government jurisdictions as the appropriate direction for identity and access management. The formal IAM strategy was presented to OCIO stakeholders in December, 2015. The objectives of the strategy include: • Acquire a new authentication solution; • Engage key Government stakeholders; • Align with the Federal Government's Pan-Canadian IAM initiatives
Expanded Government's wireless network.	From April 1, 2014 to March 31, 2015, wireless services were expanded to nine new Government locations including: Access to Information and Protection of Privacy Office (Review Commission); Department of Education and Early Childhood Development (Learning Resource Distribution Centre Boardroom); R12 Project Office; Department of Finance (Corporate Services); Department of Health and Community Services (Medical Care Plan), Department of Child Youth and Family Services (Project Office); Supreme Court; Court of Appeal; Unified Family Court; and, Newfoundland and Labrador Statistics Agency. Work completed to expand Government's wireless network to the new locations included the installation of required data cabling and related network infrastructure.
Set standards for Government-issued tablets.	In June 2014, based on industry research and significant in-house analysis, the OCIO defined the technical standards for Windows 8 tablets and amended the Government Standing Offer to include Windows 8 tablets that meet those specific, mandatory standards. In addition, the standard tool set used to manage work stations was revised to accommodate Windows 8 tablets.
Developed and implemented a solution for credential management, and enabled select Government applications, as driven by business needs and	After select Government applications were assessed for mobile device delivery, a list of candidate applications was developed in November 2015. Applications identified during the assessment include: • Vehicle Registration and Renewal; • E-Payment; • Student Aid; • Provincial Courts Online Dockets;

opportunities, to be accessible on mobile devices.	• Marine Services and Ferry Schedules; • Restaurant Inspection reports. A document outlining identified technology solutions for mobile delivery for existing services was completed in January 2016. In 2016-2017 the OCIO refined the approach and completed the strategy for the Credential Management Solution. A request for information (RFI) was released and the evaluation completed in March 2017

2016-17 Objective

By March 31, 2017, the Office of the Chief Information Officer will have leveraged the strategies for Cloud Computing and Identity and Access Management to enhance e-service delivery, as driven by business needs and opportunities within Government.

Indicators and Accomplishments 2016-17

Indicator (Planned)	Accomplishments (Actual)
Incorporated a Cloud Strategy into the Information Technology solution selection process.	Cloud computing is a model for enabling on-demand access to computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly used with minimal effort or service provider interaction. In general, any subscription-based service that extends IT capabilities in real time over the Internet can be considered a cloud service. The OCIO worked closely with the Access to Information and Protection Privacy Office and the Office of the Information and Privacy Commissioner to develop privacy guidelines which will be incorporated into the OCIO's System Development Life Cycle in early 2017-18. The OCIO established a Cloud Preparedness Committee to hold regular meetings with industry, thought leaders (e.g. Gartner) and other public sector jurisdictions / committees to leverage best practices.

Researched, defined and implemented a Credential Management solution.	In 2016-2017 the OCIO made progress on the Credential Management Solution. The solution was researched which refined the approach and the strategy was completed. A request for information (RFI) was released and the evaluation completed in March 2017.

Discussion of Results

As committed, the OCIO researched Credential Management Systems and defined a strategy. This research indicated that according to industry best practices, the next step was not the procurement of a solution but the issuance of a Request for Information (RFI). The RFI was issued, and the evaluation was completed in March 2017.

Over 2016-17, the OCIO made good progress on the innovation objective. The OCIO did meet the indicator of incorporating a Cloud Strategy into the Information Technology solution selection process. It accomplished this by developing privacy guidelines with stakeholders to consider when adopting a Cloud based service and through the establishment of a Cloud Preparedness Committee.

In addition, the OCIO was able to achieve its 2014-17 Innovation goal of “enhancing mobility and e-services capacity of Government departments and agencies under its mandate.” This was accomplished by the continued expansion of the Government wireless network, the definition of standards and selection criteria for mobile devices, and by the development of a formal cloud strategy which set the direction for the use of cloud based services across Government. Through these initiatives the OCIO has provided departments with additional services to better serve the public.

Issue 2: Service Delivery

The provision of professional, quality IT and IM services for Government is a core function of the OCIO, and is reflected accordingly in the 2014-17 Business Plan.

2014-17 Goal

By March 31, 2017, the OCIO will have aligned its information technology portfolio investments with the business needs of Government departments and agencies under its mandate and developed a model for delivering new services.

Measure: Aligned the Office of the Chief Information Officer's information technology portfolio investments with the business needs of Government departments and agencies under its mandate, and developed a model for delivering new services.

Goal Indicators and Accomplishments 2014-17

Indicator (Planned)	Accomplishments (Actual)
Developed and implemented a model for the delivery of new services to Government departments and agencies under its mandate.	In 2015, the OCIO reviewed the current state for delivering new services, researched lessons learned and industry best practices such as the Gartner Institute and based on these findings defined The Reuse Model, a new model for the delivery of new services. The goal of this model is to re-use existing software were possible across multiple departments with similar business requirements in a more cost effective and timely manner. The Reuse Model was presented to 15 Government Planning and Service Delivery Committees from May to September 2015. The applicable documents of the System Development Life Cycle were updated and the model was then piloted in the following five departments and agencies: • Office of Public Engagement; • Forestry and Agrifoods; • Finance; Workplace Health, Safety and Compensation Review Division; • Labour Relations Agency. The Reuse Model was used for two client projects in 2016-17 Forestry and Land Resources Online Domestic Cutting Permits and Online Court Record Checks (Provincial Court).
Developed and implemented a new Professional Services	In 2015-16, the OCIO with the buy-in of its vendors of record, extended the agreements for an additional year. By extending the agreements, the OCIO had sufficient time to

procurement agreement.	complete a review of the procurement approach and consider appropriate recommendations in relation to vendor procurement. The OCIO issued and evaluated a Request for Proposals to procure services in 2016 and negotiated a three year contract with Flextrack, which was signed November 4, 2016 The OCIO developed and implemented a plan for a new Managed Service Provider to provide services on or before April 1, 2017, as well as an accompanying change management plan.
Defined priorities for legacy system modernization, and begun to modernize select applications as departmental business needs are identified.	Over the fiscal year OCIO resources with various legacy application expertise reviewed previous risk reduction activities and defined priorities for future system modernization. These resources found that legacy system upgrades are often driven by other client requests or initiatives which require upgrades in order to accommodate additional application functionality or reduce risk. Several legacy systems were modernized over 2014-15 based on the defined priorities including Microsoft Access, AccPac, Oracle, and TRIM (CCM replacement).

2016-17 Objective

By March 31, 2017, the Office of the Chief Information Officer will have implemented a new professional services procurement agreement, and continued to implement the portfolio roadmap and the model for delivering new services.

Indicators and Accomplishments 2016-17

Indicator (Planned)	Accomplishments (Actual)
Continued to implement a model for delivering new	The OCIO documented next steps for the Reuse Model, a model that permits the reuse of existing technology in the delivery of new services. The Reuse Model was used for two client projects: Land Resources Online Domestic

services.	Cutting Permits and Online Court Record Checks (Provincial Court).
Developed a new information technology and information management Professional Services Procurement Agreement for Government departments and agencies.	The OCIO issued and evaluated a Request for Proposals to procure services in 2016. The OCIO negotiated a three year contract with Flextrack, which was signed November 4, 2016.
Implemented a new Professional Services procurement agreement.	The OCIO developed and implemented a plan for a new Managed Service Provider to provide services on or before April 1, 2017, as well as a change management plan that was approved by executive. New resources began working at the OCIO on Monday, April 3, 2017.
Continued to implement the portfolio roadmap.	The roadmap was used during the 2017-18 budget process to help analyze and prioritize departmental IT project requests and is used in discussions with departments to promote efficiency in the analysis process and developing potential recommendations for new IT initiatives.

Discussion of Results

As detailed in the table above, the OCIO has met all performance indicators related to the 2016-17 Service Delivery objective to have “implemented a new professional services procurement agreement, and continued to implement the portfolio roadmap and the model for delivering new services.” This objective was accomplished by signing a three year contract with Flextrack to provide professional services and by expanding the scope of use of the portfolio roadmap and the reuse model when analyzing new project requests.

The OCIO was able to effectively address the 2014-17 Service Delivery goal to "have aligned its information technology portfolio investments with the business needs of Government departments and agencies under its mandate and developed a model for delivering new services.” This was accomplished by developing and implementing a

new model to deliver new services, negotiating a new Professional Services procurement agreement and continuing to modernize select applications in response to departmental business needs.

Issue 3: Information Management and Protection

Improving and maturing the management and protection of Government information is a key priority for Government. Government information must be managed in an efficient and secure manner according to the requirements of legislation and policy.

2014-17 Goal

By March 31, 2017, the OCIO will have improved Government's information technology security position.

Measure: Defined an information technology portfolio roadmap and model for delivering new services to Government departments and agencies under its mandate.

Goal Indicators and Accomplishments 2014-17

Indicator (Planned)	Accomplishments (Actual)
Enhanced information technology security awareness communications across Government.	October 2014 was declared Cyber Security Awareness Month within Government. During that time, the OCIO delivered a Government-wide awareness campaign that included the following activities: • PSN message highlighting and promoting cyber security; Chief Information Officer (CIO) email to Deputy Ministers informing them of Cyber Security Awareness Month and highlighting the importance of cyber security, with suggested text for Deputy Ministers to issue their own communications within their departments; • Email communications to all Provincial Government employees to highlight the relevance/importance of cyber security as well as tips/best practices; • IP for IM Practitioners Half Day Session delivered to IM staff across departments; • Multiple 'Get Cyber Safe' Information Sessions delivered throughout Government

	The Cyber Security Awareness Campaign was developed in September 2015 and implemented in October 2015. Activities during October's Cyber Security Awareness Month included: • Messages from the Clerk; • Messages from the Chief Information Officer; • Information posted on the Public Service Network; • Posters hung in various Government buildings; • Information posted on the OCIO website and intranet; Cyber Security Awareness related contests; and, • The Centre for Learning and Development offered a new online Cyber Security Awareness course.
Improved delivery of security services.	After assessing opportunities to use existing tools and resources to improve delivery of IT security services such as monitoring and alerting suspicious network activity, a document defining OCIO's core security appliances was developed in December 2014. This document aligns the core security appliances with OCIO's Information Protection and Security (IPS) functional security controls that allow for the reuse of existing security technologies and services whenever possible. The OCIO's Corporate Asset Management Portfolio was updated to ensure entries were in place for all core security appliances defined in the document
Expanded the use of information protection and security tools within the Office of the Chief Information Officer and across Government.	Log Management is the process for generating, transmitting, storing, analyzing, and disposing of computer security log data. Functional Security Controls dictate the minimum level of security controls required to adequately protect an information asset, A Log Management Directive and Guideline were developed and approved by the Senior Leadership team in December 2014. The Log Management Directive supports the protection and management of documented system logs and improves responsiveness to security related activities A Communication Plan for the Directive and Guideline was initiated in January 2015. Communications were sent to internal OCIO employees, and OCIO's IT vendor partners.

	The Directive and Guideline were published on the OCIO intranet. The Information Protection and Security (IPS) Risk Assessments directive was developed in December 2015. The purpose of this directive is to identify criteria for the completion of IPS Risk Assessments under the OCIO's IPS Program. Prior to implementation of this directive, mandatory use of risk assessment tools within the OCIO was limited to solutions being developed or procured via the OCIO's System Development Life Cycle (SDLC). This directive expands the use of risk assessment tools by allowing the OCIO to mandate completion of information risk assessments for new and/or existing solutions developed or procured outside of the SDLC; and prior to significant upgrades to existing Internet-facing or high sensitivity solutions that reside on the Government network. This directive also gives the OCIO the authority to conduct new types of information risk assessments, such Preliminary Security Assessments, which are completed shortly after procurement of a solution. The OCIO developed an approach for completion of an annual network perimeter security risk assessment in December 2016. The approach was communicated according to an approved communications plan by March 2017. The OCIO documented current Information Protection and Security (IP&S) functional controls at the network layer in 2016. In 2017, the OCIO developed an IP&S functional security control communication plan and implemented the plan.

2016-17 Objective

By March 31, 2017, the Office of the Chief Information Officer will have expanded its ongoing IT support services to further align with the principles of Information Protection and Security.

Indicators and Accomplishments 2016-17

Indicator (Planned)	Accomplishments (Actual)
Enhanced OCIO's approach to security risk assessments focusing on the operational environments.	The OCIO developed an approach for completion of an annual network perimeter security risk assessment in December 2016. The approach was communicated according to an approved communications plan by March 2017.
Defined the Information Protection and Security functional controls at the network layer.	The OCIO documented current Information Protection and Security (IP&S) functional controls at the network layer in 2016. In 2017, the OCIO developed an IP&S functional security control communication plan and implemented the plan.

Discussion of Results

As detailed in the table above, the OCIO has met all performance indicators related to the 2016-17 Information Management and Protection objective to "have expanded its ongoing IT support services to further align with the principles of Information Protection and Security." This was accomplished by developing an approach for completion of an annual network perimeter security risk assessment, and through the definition and documentation of Information Protection and Security (IP&S) functional controls at the network layer and by the implementation of the IP& S functional security control communication plan.

By meeting the objectives outlined in the 2014-17 Business Plan for the past three years, the OCIO was able to effectively address all performance indicators and measures associated with the goal to "have improved Government's information technology security position." This was accomplished by delivering IP&S awareness communications across Government, assessing opportunities to improve the delivery of security services, increasing the use of risk assessment tools and by expanding information technology support services to further align with the principles of IP&S.

Opportunities and Challenges

During 2016-17, the OCIO worked to meet the objectives of its 2014-17 Business Plan as well as actions having IT implications documented in The Way Forward. The continued success of the organization in meeting its strategic goals as outlined in its 2014-17 Business Plan and The Way Forward, will be contingent on its ability to address potential challenges while capitalizing on future opportunities.

Digital Government

Digital Government, or Digital-by-Design, means transforming the way that Government operates, engages and delivers citizens and businesses using a "digital-first" approach. The regular use of online and mobile platforms (e.g., smartphones and tablets) in citizens' everyday lives has dramatically impacted citizens' expectations for interactions with Government. There is increased demand for alternative channels for Government interaction, including sharing information and accessing services.

Benefits realized by other Canadian jurisdictions that have implemented digital Government include better service to citizens and businesses, cost savings and operating efficiencies through simplified processes. Based on the recommendations of the Digital Government Case for Change, the OCIO will form a Digital-By-Design project team in 2017-18, now action 2.48 of The Way Forward, to develop a Digital Strategy for the Government of Newfoundland and Labrador.

Evolution of technology

The rapid evolution of technology and the demand for more digital services has had a major impact on cyber security. Traditional security models are being challenged with the explosion of the Internet of Things[1], cloud services, social media and mobile

[1]The Internet of Things refers to the interconnection of computing devices embedded in everyday objects, enabling them to send and receive data via the Internet.

devices. This requires IT organizations to enhance and develop new approaches to risk assessment, risk management and information protection.

To address these risks, the OCIO has established an Information Protection and Security Program to provide direction on how best to protect and secure Government's information assets. This Program is a comprehensive and structured approach to protecting and securing Government information that uses policy instruments, governance, processes and technology to protect all of Government's information assets with additional attention on those deemed the most sensitive and critical.

Unaudited Financial Statements

Expenditure and revenue figures included in this document are unaudited and based on public information provided in the Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund for the Year Ended 31 March 2017. Audited financial statements are a requirement at the Government level and are made public through the Public Accounts process; however, the OCIO is not required to provide a separate audited financial statement.

		Estimates	
	Actual	Amended	Original
	$	$	$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
CURRENT			
4.1.01. CORPORATE SERVICES AND PROJECTS			
01. Salaries	**4,399,300**	5,181,000	5,181,000
Operating Accounts:			
Employee Benefits	**14,645**	17,700	17,500
Transportation and Communications	**223,680**	853,000	853,200
Supplies	**257,841**	740,600	740,600
Professional Services	**2,919,593**	3,797,600	3,797,600
Purchased Services	**149,923**	329,000	329,000
Property, Furnishings and Equipment	**112,337**	569,400	569,400
02. Operating Accounts	**3,678,019**	6,307,300	6,307,300
Total: Corporate Services and Projects	**8,077,319**	11,488,300	11,488,300
4.1.02. APPLICATION AND INFORMATION MANAGEMENT SERVICES			
01. Salaries	**9,250,915**	9,620,000	9,717,000
Operating Accounts:			
Employee Benefits	**-**	4,000	4,000
Transportation and Communications	**2,195**	8,000	8,000
Supplies	**3,444**	3,900	3,900
Professional Services	**821,763**	855,000	865,000
Purchased Services	**11,597**	12,000	2,000
02. Operating Accounts	**838,999**	882,900	882,900
	10,089,914	10,502,900	10,599,900
02. Revenue - Provincial	**(87,612)**	(102,700)	(102,700)
Total: Application and Information Management Services	**10,002,302**	10,400,200	10,497,200

(Continued on next page)

	Actual	Estimates	
		Amended	Original
	$	$	$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
CURRENT			
4.1.03. OPERATIONS AND SECURITY			
01. Salaries	**8,286,885**	8,313,100	8,216,100
Operating Accounts:			
Employee Benefits	**32,004**	35,000	10,000
Transportation and Communications	**1,355,980**	1,610,000	1,635,000
Supplies	**6,608,370**	6,738,400	6,738,400
Professional Services	**29,672**	100,000	100,000
Purchased Services	**4,598,240**	4,826,100	4,826,100
Property, Furnishings and Equipment	**843,779**	1,135,400	1,135,400
02. Operating Accounts	**13,468,045**	14,444,900	14,444,900
	21,754,930	22,758,000	22,661,000
02. Revenue - Provincial	**(555,135)**	(462,800)	(462,800)
Total: Operations and Security	**21,199,795**	22,295,200	22,198,200
CAPITAL			
4.1.04. CORPORATE SERVICES AND PROJECTS			
01. Salaries	**1,447,287**	1,724,000	1,724,000
Operating Accounts:			
Transportation and Communications	**7,902**	31,000	31,000
Supplies	**753,540**	756,900	211,900
Professional Services	**6,489,939**	11,011,000	11,613,000
Purchased Services	**20,546**	21,000	-
Property, Furnishings and Equipment	**106,015**	170,000	170,000
02. Operating Accounts	**7,377,942**	11,989,900	12,025,900
Total: Corporate Services and Projects	**8,825,229**	13,713,900	13,749,900
4.1.05. OPERATIONS AND SECURITY			
Operating Accounts:			
Supplies	**119,358**	-	-
Property, Furnishings and Equipment	**414,183**	558,000	558,000
02. Operating Accounts	**533,541**	558,000	558,000
Total: Operations and Security	**533,541**	558,000	558,000
TOTAL: OFFICE OF THE CHIEF INFORMATION OFFICER	**48,638,186**	58,455,600	58,491,600